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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,215	07/07/2003	Francesco Grilli	030337	3124
23696 7590 02/22/2008 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER DADA, BEEMNET W	
			ART UNIT 2135	PAPER NUMBER
			NOTIFICATION DATE 02/22/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/617,215

Applicant(s)

GRILLI ET AL.

Examiner

BEEMNET W. DADA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in reply to an amendment filed on November 30, 2007. Claims 1, 12, 22, 31, 41 and 52 have been amended. Claims 1-61 are pending.

Response to Arguments

Applicant's arguments, filed 11/30/07, with respect to 35 USC 101 rejections of claims 1-11, 22-29 and 41-51 have been fully considered and are persuasive. The rejection of claims 1-11, 22-29 and 41-51 under 35 USC 101 as being directed to an abstract idea has been withdrawn in view of the amendments to the claims.

Applicant's arguments filed 11/30/07 with respect to 35 USC 101 rejections of claims 22-39 as being directed to functional descriptive material have been fully considered but they are not persuasive. Applicant argued that a memory module includes a physically secure integrated circuit card or smart card and therefore, the claims are not directed to non-statutory subject matter under 35 USC 101. Examiner disagrees.

Examiner would point out that, Claims 22 and 31 recite means plus function which is defined in the specification to be implemented through software [see specification paragraphs 1029 and 1031] and therefore, the recited claims are directed to functional descriptive material, and therefore, the claimed subject matter does not fall within the statutory classes listed in 35 USC 101.

Applicant's arguments filed 11/30/07 with respect to 35 USC 102(e) rejections of claims 1-61 have been fully considered but they are not persuasive.

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Applicant argued that, the art on record fails to teach 'generating a temporary registration key (RGK) as a function of the RAK. Applicant further argued that the specification cites, "... RAK which is a function with arguments PK and RAND. ... RAK is a temporary, RAN specific key used to generate temporary, user-specific registration key (RGK) values ... RGK is a temporary, user-specific key used to authenticate registration messages..." Examiner disagrees.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "... RAK which is a function with arguments PK and RAND. ... RAK is a temporary, RAN specific key used to generate temporary, user-specific registration key (RGK) values ... RGK is a temporary, user-specific key used to authenticate registration messages..." are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Examiner would point out that, the art on record (Faccin US 6,879,609 B2) teaches generating a radio access network key (RAK) (i.e., generating new TSK value) as a function of the random number (i.e., RANDTSK) and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK) (i.e., long-term key) [column 10, lines 45-47 and figure 5], and generating a temporary registration key (RGK) (i.e., AUTHU) as a function of the RAK [column 10, lines 63 -67].

Applicant further argued that, Faccin does not disclose a multicast-broadcast-multimedia system. Applicant argued that, the specification cites an MBMS as "a multicast-broadcast multimedia network wherein a serving network transmits the content to a single user through ... the service exceeds a predetermined threshold" Examiner disagrees.

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In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., , as "a multicast-broadcast multimedia network wherein a serving network transmits the content to a single user through ... the service exceeds a predetermined threshold") are not recited in the rejected claim(s). Examiner would further point out that, the term ' multicast-broadcast multimedia network' is not defined in the specification and as indicted in figure 1 of the applicant's drawings, an MBMS is directed to a mobile communication system, having mobile unit, serving network and a home network [see figure 1 of present application]. Examiner would further point out that Faccin teaches a multicast broadcast multimedia system for a mobile station [see column 1, lines 17-37 and figures 1 and 2]. Examiner would further point out that the art on record teaches the claimed limitations and therefore the rejection is respectfully maintained.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 22-40 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 22 and 31 are directed to a secure registration system. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. Claims 22 and 31 recite means for function which is defined in the specification to be implemented through software [see specification paragraphs 1029 and 1031] and therefore, the recited claims are directed to functional descriptive material. Generally functional descriptive

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material (i.e., software) is statutory when it is stored on a tangible computer readable storage medium. Claims 22 and 31 are rejected as being directed to a functional descriptive material. Claims 23-29 and 32-40 depend from claims 22 and 31, and therefore are rejected under the same rationale.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-61 are rejected under 35 U.S.C. 102(e) as being anticipated by Faccin et al.

US 6,879,690 B2 (hereinafter Faccin).

As per claims 1, 22 and 41, Faccin teaches a method of obtaining secure registration by a memory module (UICC) in a multicast-broadcast-multimedia system (MBMS), the method comprising:

receiving a random number (RANDTSK, column 9, lines 63-67 and column 10, lines 11-14);

generating a radio access network key (RAK) (i.e., generating new TSK value) as a function of the random number (i.e., RANDTSK) and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK) (i.e., long-term key) [column 10, lines 45-47 and figure 5];

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generating a temporary registration key (RGK) (i.e., AUTHU) as a function of the RAK [column 10, lines 63 –67], and

authenticating at least one registration message in the MBMS based on the RGK [column 10, line 64-67 and column 8, lines 29-47]

As per claims 12, 31 and 52, Faccin teaches a method of obtaining secure registration by a mobile station in a multicast-broadcast-multimedia system (MBMS), the method comprising:

receiving a random number from a radio access network (i.e., AAAv receiving RANDTSK, column 10, lines 11-13);

transmitting the random number to a memory module (UICC) (i.e., transmitting RANDTSK to mobile node/device, column 10, lines 11-14);

receiving from the UICC a temporary registration key (RGK) based on the random number [column 10, lines 45-60], and

authentication at least one registration message in the MBMS based on the RGK [column 10, line 64-67 and column 8, lines 29-47]

As per claims 2, 23 and 42, Faccin further teaches the method further comprising transmitting the RGK to a mobile telephone [column 10, lines 60-67].

As per claims 3-5, 24-26 and 43-45, Faccin further teaches the method further comprising receiving a provisioning message from a broadcast-multicast service center [figure 4 and 5].

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As per claims 6, 7, 27, 28, 46 and 47, Faccin further teaches the method wherein the RGK is a function of the RAK, a service identification number and a user identification number [column 10, lines 60-67 and figures 4 & 5].

As per claims 8, 18, 37, 48 and 58, Faccin further teaches the method wherein the UICC comprises a subscriber identity module (SIM) in a GSM system [figures 1 and 2].

As per claims 9, 19, 38, 49 and 59, Faccin further teaches the method wherein the UICC comprises a RUIM in CDMA system [figures 1 and 2].

As per claims 10, 11, 20, 21, 29, 30, 39, 40, 50, 51, 60 and 61, Faccin further teaches the method wherein the PK/BAK is provisioned by using a public key [column 10, lines 25-67].

As per claims 13, 32 and 53, Faccin further teaches the method wherein the RGK is a function of a radio access network key (RAK) which is a function of the random number and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK) [column 10, lines 45-47 and figure 5].

As per claims 14, 15, 33, 34, 54 and 55, Faccin further teaches the method wherein the PK is extracted from a provisioning message received from a broadcast-multicast service center [figure 4 and 5].

As per claims 16, 17, 35,36, 56 and 57, Faccin further teaches the method wherein the RGK is a function of the RAK, a service identification number and a user identification number [column 10, lines 60-67 and figures 4 &5].

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BEEMNET W. DADA whose telephone number is (571)272-3847. The examiner can normally be reached on Monday - Friday (9:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Beemnet W Dada

February 16, 2008

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2,17,08